REMARKS

Applicants submit that by the present Amendment and Remarks, this application is placed in clear condition for immediate allowance. Further, the present Amendment does not generate any new matter issue, because the limitations of claims 13 and 14 have been incorporated into independent claim 10, and claims 13 and 14 cancelled. Clearly, the present Amendment does not generate any new matter issue or any new issue for that matter. At the very least, the present Amendment reduces the number of issues on Appeal by clearly obviating the rejection of claims 10 through 13. Accordingly, entry of the present Amendment and Remarks, and favorable consideration, are solicited.

Claim 10 was rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Huang et al.

Claim 11 was rejected under 35 U.S.C. § 103 for obviousness predicated upon Huang et al.

Claims 12 and 13 were rejected under 35 U.S.C. § 103 for obviousness predicated upon Huang et al. in view of Tseng et al.

Each of the above rejections of claims 10, 11 and 12 and 13, is traversed. Indeed, each of the above rejections has been rendered moot by incorporating the limitations of claim 13 and **claim 14** into independent claim 10, claim 14 not being subject to any of the above rejections. Accordingly, withdrawal of the above rejections of claims 10, claim 11 and claims 12 and 13, is solicited.

Claim 14 was rejected under 35 U.S.C. § 103 for obviousness predicated upon Huang et al. in view of Tseng et al. and Nakatani.[1]

In the statement of rejection the Examiner asserted that one having ordinary skill in the art would have been motivated to modify the Fig. 4 embodiment of Huang et al. by providing a spacer in view of Tseng et al. This rejection is traversed, because even if the applied references are combined as suggested by the Examiner, the claimed invention will not result. Moreover, the Examiner has admitted that the primary reference to Huang et al. **teaches away** from the claimed invention, thereby undermining the asserted motivation.

The invention defined in independent claim 10 is directed to a semiconductor device comprising a layer of BPSG on an undoped oxide liner of filling a gap between two gate electrode structures, each gate electrode structure comprising a tunnel oxide, floating gate electrode, interpoly dielectric (ONO), and a control gate. In rejecting claim 10 the Examiner relied upon Figs. 1 through 4 of Huang et al. **But Figs. 1 through 3 of Huang et al. represent prior art and Huang et al. teach away from such prior art.**

In apparent recognition of the clear and admitted **teaching away** from the claimed invention by Huang et al., the Examiner predicated the rejection of claim 14 upon Fig. 4 of Huang et al. **But in Fig. 4 of Huang et al., which represents the invention of Huang et al., there is no BPSG layer.** Repeat, the relied upon Fig. 4 device of Huang et al. does **not** contain a **BPSG** layer. This is because Huang et al., as admitted by the Examiner, **teaches away from a BPSG layer**. In fact, as argued in the only full paragraph on page 7 of the responsive Amendment dated April 8, 2005, when it comes to the invention of Huang et al. in Fig. 4, **there**

[1] Applicants will treat this rejection as though applied against independent claim 10, since the limitations of claim 14 have been incorporated into claim 10, and claim 14 has been cancelled.

is no BPSG layer. Rather, Huang et al. employ an **HDP oxide layer** which **may** contain phosphorous. Again, in the invention of Huang et al. represented in Fig. 4 which is relied by the Examiner, there is **no BPSG layer**.

Accordingly, **if** one having ordinary skill in the art would have been motivated to modify the device disclosed by Huang et al., and that is a **big if** with which Applicants do **not** agree, a sidewall spacer would be formed in the Fig. 4 embodiment **which does not contain a BPSG layer as in the claimed invention**. Clearly, the resulting structure would **not** correspond to the claimed invention. *Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).*

Moreover, it is **inconceivable** that one having ordinary skill in the art would have gone one step further and modified the Fig. 4 embodiment of Huang et al. by eliminating the disclosed invention, which involves deposition of an HDP oxide layer, and replacing it with a BPSG layer which Huang et al. **do not want** and **condemn** because of the formation of a **void**. It is totally improper to conclude that one having ordinary skill in the art would have been realistically motivated to modify an apply a reference in a manner **inconsistent** with the disclosed objective. *In re Fritch, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992); In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); In re Schulpen, 390 F.2d 1009, 157 USPQ 52 (CCPA 1968).*

Moreover there is no apparent reason why one having ordinary skill in the art would have been realistically motivated to reach into the trash basket of Huang et al. and modify the condemned prior art device of Figs. 1-3. This is because the proposed modification would **not** cure the **void problem** identified by Huang et al. The only apparent basis is found in Applicants' disclosure which is forbidden territory upon which an Examiner may excavate for

the requisite motivation. *Panduit Corp. v. Dennison Mfg. Co., 774 F.2d 1082, 227 USPQ 337 (Fed. Cir. 1985).*

Evidence of nonobviousness

Further, Applicants would argue that the primary reference to Wang et al. constitutes evidence of **nonobviousness in teaching away** from a **BPSG** layer, as claimed. Such an **admitted teaching away from the claimed invention** constitutes a potent indicia of **nonobviousness**. *Ecolochem Inc. v. Southern California Edison, Co. 227 F.3d 1361, 56 USPQ2d 1065 (Fed. Cir. 2000); In re Bell, 991 F.2d 781, 26 USPQ2d 1529 (Fed. Cir. 1993); Specialty Composites v. Cabot Corp., 845 F.2d 981, 6 USPQ2d 1601 (Fed. Cir. 1988); In re Hedges, 783 F.2d 1038, 228 USPQ 685 (Fed. Cir. 1986).*

One further point should be noted. In section 11 commencing at page 6 of the May 27, 2005 Office Action, the Examiner clearly **agreed** with Applicants that a prior reference must be considered with respect to its **teaching away** from a claimed invention. Not only did the Examiner agree with Appellants, the Examiner cited appropriate provision of the MPEP as well as a judicial decision. The feature of the invention relied upon is the BPSG layer, and the primary reference to Huang et al. admittedly **teach away form a BPSG layer**.

Applicants, therefore, submit that the imposed rejection of claim 14, which Applicants treated as though now being applied against claim 10, is not factually or legally viable and, hence, solicit withdrawal thereof.

Based upon the foregoing it should be apparent that the imposed rejections have been overcome and that all active claims are in condition for immediate allowance. Favorable consideration is, therefore, solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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Date: July 1, 2005